

REMARKS

This supplemental amendment is prepared in response to the discussions during the personal interview with the Examiners regarding the status of the claims and the issues in the above-identified U.S. Patent Application, which was held at the U.S. Patent Office in Alexandria, VA, on September 18, 2007.

I. INTERVIEW DISCUSSIONS AND CLAIM CHANGES

During the interview the Examiners pointed out that the cycle lane information and some road construction information would be available on road signs and thus could be read by the camera according to the methods of Heimann, et al.

Accordingly the claimed methods of independent method claims 26 and 32 were amended to limit them to methods of updating a pre-existing digital map for temporary or permanent changes in the course of roads and streets due to road construction, especially of new streets and roads. The basis for the changes, especially in step d) of claims 26 and 32, is found on page 3, lines 1 to 3, and page 6, lines 15 to 20, of applicants' originally filed specification.

Steps a) and b) of method claims 26 and 32 have been changed to clearly state that the surroundings of the vehicle from which the image data is collected include the at least one road or street section over which the vehicle 7 travels.

Figs. 3 and 4 and the associated disclosure in applicants' specification support this additional limitation.

Method claims 26 and 32 were amended to include the additional step f) of comparing the road or street section data produced by the correlating with pre-existing road or street section data of a pre-existing digital map in order to update the pre-existing digital map. In other words, method claim 26 has been amended to include the limitations of claim 30 and method claim 32 has been amended to include the limitations of claim 37. As a result claims 30 and 37 have been canceled. Accordingly the dependencies of claims 31 and 28 were amended so that they now depend directly on the independent method claims.

Thus method claims 26 and 32 are now limited to a method of collecting road or street section data with a special vehicle traveling over the roads or streets to update a pre-existing digital map for changes in the course of the roads or streets due to road construction.

Similar changes have been made in device claim 42.

The dependencies of claims 29 and 36 have been amended to correct antecedent basis errors involving reference to the fixed first coordinate system 24 in these claims.

Claims 48 and 50 were canceled to avoid claiming subject matter that was largely duplicated in the independent method claim 26. Claim 49 was amended so that there was not a conflict with the wording in the amended claim 26.

II. Obviousness Rejections

Claims 26 to 28, 30 to 31 and 45 to 48 were rejected as obvious under 35 U.S.C. 103 (a) over Heimann, et al (US Patent 5,948,042), in view of Tanaka (US Patent 6,470,265 – US '265).

Claims 29, 32 to 44, and 49 to 50 were rejected as obvious under 35 U.S.C. 103 (a) over Heimann, et al, U.S. Patent 5,948,042, in view of Tanaka, US Patent 6,470,265, and further in view of Kawai, et al, U.S. Patent 6,577,334.

Arguments to overcome these obviousness rejections were provided in the amendment dated August 9, 2007. These arguments should be reviewed at this point.

The amended claims are better focused on the method and device that the applicants consider to be their inventions. The amended claims 26, 32, and 42 more particularly point out and distinctly claim the subject matter that is distinguished from the prior art references of record in the present application.

Heimann, et al, only uses the camera to collect information from road signs placed along the route over which their vehicle travels collecting data. The information is limited to information regarding legally permitted direction of traffic flow, such as permitted turns and directions of flow, such as one-way street signs. Heimann, et al, is interested in updating pre-existing digital maps, but only for changes in the information gathered from the traffic signs regarding the legally permitted direction of traffic flow (column 3, lines 15 to 24).

However Heimann, et al, is not concerned with changes in the number or

location, physical structure or size of the roads themselves. Heimann, et al, does not teach a method of updating a pre-existing digital map for the course and attributes of one or more **newly constructed** roads, for example the construction of an entire development of hundreds of houses with five or more new roads, which does occur on the outskirts of large urban areas, such as New York or Los Angeles. One cannot collect the position coordinates for the course of newly constructed streets of a development from street signs or traffic signs.

Applicants' method claims now specifically state that the vehicle surroundings include the at least one road or street section 8 on which the vehicle collecting image data travels. In other words, the imaging device 1 is directed to collect image data from the road or street itself, which would include the width of the street, the number of lanes, the presence of absence of a cycle lane, shoulder and parking lane information and curvature information. Of course like Heimann, et al, the imaging device 1 could collect information from road signs, which would include some information regarding road construction work that is in progress and necessary detours to avoid areas in which construction work is taking place. However the imaging device of Heimann, et al, that is directed to collect information from traffic signs along the street and not at the street itself would not detect the presence of a new lane on a road after the lane has been constructed. However applicants' claimed method would detect the presence of the new lane because the applicants' image data include image data of the street on which the vehicle travels itself.

Thus applicants' image data is more complete and the claimed method is

more comprehensive than the image data collected by Heimann, et al, that is limited to data from traffic signs, so that information that is not included on the traffic signs would not be collected by the method of Heimann, et al. Thus applicants' methods are better because they are more thorough providing more information, for example lane size information, street curvature information, shoulder and parking place for newly constructed streets and roads.

Tanaka, et al, has been discussed in the amendment data August 9, 2007 and is not appropriate for collecting information regarding the construction of new streets and roads in an urban area with tall buildings. Applicants' method is distinguished from the methods in Tanaka, et al, which are limited to collecting data from earth satellites and/or aircraft regarding roads for a digital map. Tanaka, et al, in column 1 teaches against collecting data from ground-based vehicles for updating a pre-existing digital map due the vast amounts of data that must be collect along with the accompanying expense and effort.

Especially one skilled in the art would not combine the subject matter of Tanaka, et al, with Heimann, et al, to obtain the method as claimed in the more limited new claim 26. New claim 26 no longer claims embodiments in which cycle lane information is collected and information regarding construction of new roads is not collected. The cycle lane information is collected by the method claimed in new method claim 32 along with the information regarding construction of new roads. Both independent method claims 26 and 32 have been limited to methods of updating pre-existing digital maps for the construction of new roads or streets. Also both new method claims 26 and 32 have been limited to the use of vehicles

with a camera and GPS that travel on the roads or streets, i.e. to data collection via ground-based vehicles, which excludes the methods of Tanaka, et al.

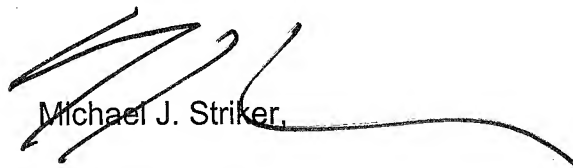
For the foregoing additional reasons and those in the amendment of August 9, 2007 and because of the new limitations in claims 26 and 32, withdrawal of the rejection of claims 26 to 28, 31, and 45 to 47 as obvious under 35 U.S.C. 103 (a) over Heimann, et al (U.S. Patent 5,948,042), in view of Tanaka, US Patent 6,470,265, is respectfully requested.

For the foregoing additional reasons and those in the amendment of August 9, 2007 and because of the new limitations in amended independent claims 32 and 42, withdrawal of the rejection of claims 29, 32 to 36, 38 to 44, and 49 as obvious under 35 U.S.C. 103 (a) over Heimann, et al, U.S. Patent 5,948,042, in view of Tanaka, US Patent 6,470,265, and further in view of Kawai, et al, U.S. Patent 6,577,334 is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, consisting of several fluid, overlapping strokes that form a stylized representation of the name Michael J. Striker.

Michael J. Striker,

Attorney for the Applicants

Reg. No. 27,233